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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,771	07/21/2000	Gregory Lucius Meredith	13768.1252	3989
47973 7590 02/05/2010 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111				
EXAMINER				
JARRETT, SCOTT L				
ART UNIT		PAPER NUMBER		
3624				
MAIL DATE		DELIVERY MODE		
02/05/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/620,771

**Applicant(s)**

MEREDITH ET AL.

**Examiner**

SCOTT L. JARRETT

**Art Unit**

3624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 5-10 and 53-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-10 and 53-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SEI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

***Requirement for Information – USC § 1.105***

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

Examiner's research indicates that the applicant and/or assignee have provided a process/method processing a schedule of a plurality of sub-transactions within a parent transaction or more specifically selectively hydrating/dehydrating workflows (schedules/processes). As evidenced by at least the following reference: BizTalk Server 2000 Help Manual (1999-2000).

In response to this requirement, please provide the names of any products or services that have incorporated the claimed subject matter, specifically information on the process/methods utilized by the above-cited products and/or services provided by the applicant and/or assignee. Specifically please address at least the following products BizTalk Server and/or BizTalk Orchestration.

In response to this requirement, please state the specific improvements of the claimed subject matter in claims over the system/method for processing a schedule and/or hydrating/dehydrating schedules disclosed above and indicate the specific elements in the claimed subject matter that provide those improvements.

In response to this requirement, please provide the citation and a copy of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of system/method for processing a schedule and/or hydrating/dehydrating schedules. Specifically please include any manuals, training materials, presentations or the like related to BizTalk Server and/or BizTalk Orchestration.

In response to this requirement, please provide the citation and a copy of each publication that any of the applicants relied upon to develop the disclosed subject matter that describes the applicant's invention, particularly as to system/method for processing a schedule and/or hydrating/dehydrating schedules.

For each publication, please provide a concise explanation of the reliance placed on that publication in the development of the disclosed subject matter.

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

The fee and certification requirements of 37 C.F.R. § 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those

documents within the scope of this requirement under 37 C.F.R. § 1.105 that are included in the applicant's first complete communication responding to this requirement.

Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 C.F.R. § 1.105 are subject to the fee and certification requirements of 37 C.F.R. § 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete response to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete response to the enclosed Office action must include a complete response to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action, which is 3 months.

**DETAILED ACTION**

1. This Non-Final Office Action is in response to Applicant's request for continued examination filed December 11, 2009 and supplemental amendment filed January 25, 2010. Applicant's amendment amended claims 1, 2, 5, 6 and 53-56. Currently claims 1, 2, 5-10 and 53-60 are pending, claims 3, 4 and 11-52 being canceled.

***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 11, 2009 has been entered.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9 and 59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 and 59 recites the limitation " the data comprises schedule state" in Claims 1 and 53, respectively There is insufficient antecedent basis for this limitation in the claim.

Examiner interpreted the claim to read a data comprises schedule state for the purposes of examination. Appropriate correction required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5-10 and 53-60 are rejected under 35 U.S.C. 103(a) as being obvious over BizTalk Server 2000 as evidenced by at least the following reference: BizTalk Server 2000 Help Manual (2000) and further in view of official notice.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).



Regarding Claims 1 and 53 BizTalk teaches a system and method of processing a schedule of a plurality of sub-transactions (child/sub/nested/hierarchical - processes, activities, workflows, jobs, etc.; group/actions - nested transactions, Page 85; ) within a parent transaction at a computer system comprising (Pages 90, 94, 95, 97):

- initiating a transaction from among the plurality of transactions (processes, activities, workflows, jobs, etc.) into system memory of the computer system prior to occurrence of an external event on which the sub-transaction depends, the sub-transaction configured to idle (hold, suspend, pause, wait, etc.) until the external event occurs, the sub-transaction including a latency attribute representing an estimated wait time indicating how long the sub-transaction is expected to be idle/wait for the external event to occur (e.g. long-running transactions; timed transactions; Bullets 4-8, Page 92; Paragraphs 2-3, Page 94), the sub-transaction being represented by transaction boundaries that indicate when the sub-transaction starts and ends within the parent transaction (Bullet 3, Page 92; "transaction shape", group actions/nested transactions, Page 85);

- accessing a latency threshold defining a maximum amount of time (timeout, latency setting/value) the computer system allows the sub-transaction to remain idle in system memory waiting for the external event, the dynamically computed latency threshold computed in accordance with a latency function based on one or more system performance characteristics (Bullets 5-8, Page 92; Bullets 4-8, Page 92; Paragraphs 2-3, Page 94);

- comparing the latency attribute to the latency threshold (Paragraphs 3-4, Page 95; Paragraphs 3-4, Page 97; Paragraphs 2-3, Page 94);

- determining that the estimated wait time (hold, pause, delay, latency, etc.) for the sub-transaction exceeds the maximum amount of time the sub-transaction is allowed to remain idle in system memory waiting for the external event to occur (i.e. latency > latency threshold; Paragraphs 2-3, Page 90; Paragraphs 3-4, Page 95; Paragraphs 3-4, Page 97);

- dehydrating the schedule to persist schedule stat to a non-volatile storage medium (i.e. load the schedule (transaction/process/workflow) into memory) including ("dehydrated schedule", Page 10; Paragraphs 2-3, Page 90; Bullets 4-5, Page 91; Paragraphs 3-4, Page 95; Paragraphs 3-4, Page 97):

- recognizing the transaction boundaries of the sub-transaction (Bullet 3, Page 92; "transaction shape", group actions/nested transactions, Page 85);

- persisting the schedule state in the memory based on the sub-transaction transaction boundaries (Paragraphs 3-4, Page 97); and

- selectively de-allocating (releasing, re-assigning, free-up, etc.) memory allocated to the sub-transaction after suspension of the schedule (for use by other workflow actions merely represents the intended use of the de-allocated memory and has not been given patentable weight; "Terminate the class objects, Page 79; Paragraphs 2-3, Page 94; Paragraphs 3-4, Page 95; Paragraphs 3-4, Page 97).

BizTalk does not expressly teach that the latency threshold is dynamically computed as claimed.

Official notice is taken that computing (determining) workflow/process parameters dynamically (i.e. at run-time, in real-time, etc.) is old and well known. For example, BizTalk Orchestration - A Technology for Orchestrating Business Interaction White Paper, teaches that dynamic processes are old and well known and supported by BizTalk Server 2000 (Bullet 2, Page 4; Last Paragraph, Page 6).

It would have been obvious to one skilled in the art at the time of the invention that the system and method as taught by BizTalk with its ability to compute a latency threshold would have benefited from dynamically computing the latency threshold in view of the teachings of official notice, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 2 and 54 BizTalk teaches a system and method further comprising establishing a proxy (label, link, association, handle, name, port, etc.) with a naming service to associate the persisted schedule state with the occurrence of the external event ("Name a transaction", Page 86; Paragraph 5, Bullets 1-2, Page 95).

Regarding Claims 5 and 55 BizTalk teaches a system and method further comprising (Paragraphs 2-3, Page 90; Paragraphs 3-4, Page 97): detecting the occurrence of the external event subsequent to persisting the schedule state; reading the persisted schedule state out of the non-volatile storage medium in response to the occurrence of the external event; restoring (hydrating, rehydrating) the sub-transaction into system memory in response to detecting the occurrence of the external event; and restoring (resuming, restarting, etc.) execution of the sub-transaction based on the external event and the sub-transaction transaction boundaries.

Regarding Claims 6 and 56 BizTalk teaches a system and method further comprising allocating (assigning) memory for execution of the schedule (sub-transaction, transaction, workflow, process) prior to restoring the sub-transaction into memory (i.e. retrieving the process for memory/persistence database and executing, rehydration; rehydrate, Page 16; Paragraphs 2-3, Page 94; Paragraphs 3-4, Page 95; Paragraphs 3-4, Page 97).

Regarding Claims 7 and 57 BizTalk teaches a system and method wherein the latency attribute is adjustable according to a variable (latency value/setting, timeout property; "Set the Timeout Property", Page 87; Paragraphs 3-4, Page 97).

Regarding Claims 8 and 58 BizTalk teaches a system and method wherein the variable is related to the actual latency for completion of the workflow action (Paragraphs 3-4, Page 97).

Regarding Claims 9 and 59 BizTalk teaches a system and method wherein data comprises schedule state information ("dehydrated schedule", Page 10; persistence database, Page 15).

Regarding Claims 10 and 60 BizTalk teaches a system and method further comprising adjusting the latency threshold based on a variable (latency setting/value; "Set the Timeout Property", Page 87; Paragraphs 3-4, Page 97).

**Examiner's Note**

The instant application may disclose patentable subject matter however not all of the disclosed potentially patentable subject matter is recited in the claims. An interview with the examiner may be productive.

***Conclusion***

This Office action has an attached requirement for information under 37 C.F.R. § 1.105. A complete response to this Office action must include a complete response to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT L. JARRETT whose telephone number is (571)272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley Bayat can be reached on (571) 272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott L Jarrett/  
Primary Examiner, Art Unit 3624